

D2
C1

R^2 is alkyl, alkenyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, hydroxyalkyl, alkoxyalkyl, alkoxycarbonylalkyl, or $NR^{13}R^{14}$ wherein:

R^{13} is hydrogen or alkyl;

R^{14} is hydrogen, alkyl, alkenyl, acyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aralkyl, hydroxyalkyl, alkoxyalkyl, carboxyalkyl, alkoxycarbonylalkyl, or aminoalkyl;

R^3 is hydrogen, alkyl, halo, nitro, cyano, hydroxy, alkoxy; an ester, a carbamate, or a pharmaceutically acceptable salt thereof.

C2

38. (Amended Herein) The compound of Claim 1 wherein:

R^1 is heteroalkyl, wherein heteroalkyl is alkylsulfonylalkyl; and
B is substituted aryl.

REMARKS

As an initial matter, Applicants wish to thank the Examiner for stating that the rejections under 35 U.S.C. §112, first paragraph, and 35 U.S.C. §102(b) have been overcome by the response filed on August 6, 2002.

In addition, Applicants wish to thank the Examiner for the courtesy of a telephone interview on September 23, 2002. During the interview, the Examiner has requested an insertion of the term "unsubstituted" in front of the term "phenyl" to explicitly indicate that the phenyl group which is a substituent of a heteroaryl group is a non-substituted benzene moiety. The term "phenyl" is well recognized in the art as being a non-substituted benzene ring system. However, in order to expedite the prosecution of this application, Claim 1 has been amended by inserting the definition of "optionally substituted heteroaryl" as defined on page 5, line 26 to page 6, line 3, and the term "phenyl" has been amended to further state, albeit now redundant, that it is "unsubstituted phenyl". Since this amendment merely restates the term "phenyl" as understood by one skilled in the art, this amendment does not narrow the scope of Claim 1. This amendment

is made at the request of the Examiner for the sole purpose of expediting the prosecution of this application.

Claims 1-19, 38-43 and 50-56 are pending in this application. Claims 50-56 have been cancelled. Claims 1 and 38 have been amended. In particular Claim 1 has been amended to specifically indicate that the phenyl group which is a substituent of a heteroaryl group is unsubstituted. And Claim 38 has been amended to indicate that the term "alkylsulfonylalkyl" is a heteroalkyl as defined on page 5, lines 10-20. Upon entry of the Supplemental Amendment, Claims 1-19 and 38-43 will be pending in this application.

Attached hereto as Appendix A captioned "Version with Markings to show changes made" is a marked-up version of the changes made to the claims by the current amendment. In addition, for the convenience of the Examiner, all claims now pending following entry of the present Amendment and Response are reproduced in Appendix B captioned "Pending Claims."

Rejection under 35 U.S.C. §103(a)

The Examiner has maintained the rejection of Claims 1-5, 12 and 13 under 35 U.S.C. §103(a) as allegedly being unpatentable over the Dinsmore et al. reference. In particular, the Examiner alleges that the term "phenyl", which is referred to as being one of the optional substituents on heteroaryl, "does not disclose whether the phenyl moiety is substituted or not."

As stated above, while Applicants maintain that the term "phenyl" is well recognized by one skilled in the art as being an unsubstituted aromatic ring system, Claim 1 has been amended to explicitly indicate that the phenyl group is unsubstituted aromatic ring system, thereby obviating this rejection.

New Claims 50-56

The Examiner has alleged new Claims 50-56 that were submitted in the Amendment and Response filed on August 6, 2002, as being not commensurate with the scope of the amended Claim 1.

Claims 50-56 have been cancelled obviating this objection.

Antecedent Basis

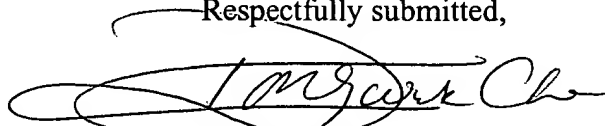
The Examiner has objected to Claim 38 as allegedly lacking antecedent basis for reciting "alkylsulfonylalkyl".

As defined on page 5, lines 10-20, the term "heteroalkyl" includes alkylsulfonylalkyl. Claim 38 has been amended to specifically indicate that the term "alkylsulfonylalkyl" is a subset of heteroalkyl.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is urged. If the Examiner believes a telephone conference would aid in the prosecution of this case in any way, please call the undersigned at 303-571-4000.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Don D. Cha", is written over a horizontal line.

Don D. Cha
Reg. No. 40,945

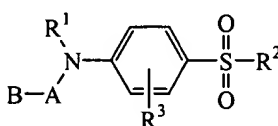
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APPENDIX A
VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claims 50-56 have been cancelled.

Claims 1 and 38 have been amended as follows.

1. (Amended Herein) A compound of the formula (I):



Formula I

wherein:

A is $-(CR_2)_n-$ where n is 1, 2 or 3 and each R is independently hydrogen or alkyl;

B is substituted aryl or ~~optionally substituted~~ heteroaryl **which is optionally substituted with one to four substituents selected from alkyl, cycloalkyl, cycloalkyl-alkyl, halo, nitro, cyano, hydroxy, alkoxy, amino, acylamino, mono-alkylamino, di-alkylamino, haloalkyl, haloalkoxy, heteroalkyl, -COR (where R is hydrogen, alkyl, unsubstituted phenyl or unsubstituted phenylalkyl, $-(CR'R'')_n-COOR$ (where n is an integer from 0 to 5, R' and R'' are independently hydrogen or alkyl, and R is hydrogen, alkyl, cycloalkyl, cycloalkyl-alkyl, phenyl or phenylalkyl), or $-(CR'R'')_n-CONR^aR^b$ (where n is an integer from 0 to 5, R' and R'' are independently hydrogen or alkyl, and R^a and R^b are, independently of each other, hydrogen, alkyl, cycloalkyl, cycloalkyl-alkyl, phenyl or phenylalkyl),** wherein ~~heteroaryl~~ **heteroaryl** is furyl, imidazolyl, pyridyl, thienyl, thiazolyl, benzothiazolyl or pyridazinyl;

R^1 is alkyl, alkenyl, cyanoalkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, heteroaralkyl, heterocyclyl, heterocyclylalkyl, heteroalkyl or alkylcarbonylalkyl;

R^2 is alkyl, alkenyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, hydroxyalkyl, alkoxyalkyl, alkoxycarbonylalkyl, or $NR^{13}R^{14}$ wherein:

R^{13} is hydrogen or alkyl;

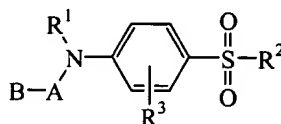
R^{14} is hydrogen, alkyl, alkenyl, acyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aralkyl, hydroxyalkyl, alkoxyalkyl, carboxyalkyl, alkoxycarbonylalkyl, or aminoalkyl;

R^3 is hydrogen, alkyl, halo, nitro, cyano, hydroxy, alkoxy; an ester, a carbamate, or a pharmaceutically acceptable salt thereof.

38. (Amended Herein) The compound of Claim 1 wherein:
 R^1 is heteroalkyl, wherein heteroalkyl is alkylsulfonylalkyl; and
B is substituted aryl.

APPENDIX B
PENDING CLAIMS

1. (Amended Herein) A compound of the formula (I):



Formula I

wherein:

A is $-(CR_2)_n-$ where n is 1, 2 or 3 and each R is independently hydrogen or alkyl;

B is substituted aryl or heteroaryl which is optionally substituted with one to four substituents selected from alkyl, cycloalkyl, cycloalkyl-alkyl, halo, nitro, cyano, hydroxy, alkoxy, amino, acylamino, mono-alkylamino, di-alkylamino, haloalkyl, haloalkoxy, heteroalkyl, -COR (where R is hydrogen, alkyl, unsubstituted phenyl or unsubstituted phenylalkyl), $-(CR'R'')_n-COOR$ (where n is an integer from 0 to 5, R' and R'' are independently hydrogen or alkyl, and R is hydrogen, alkyl, cycloalkyl, cycloalkyl-alkyl, phenyl or phenylalkyl), or $-(CR'R'')_n-CONR^aR^b$ (where n is an integer from 0 to 5, R' and R'' are independently hydrogen or alkyl, and R^a and R^b are, independently of each other, hydrogen, alkyl, cycloalkyl, cycloalkyl-alkyl, phenyl or phenylalkyl), wherein heteroaryl is furyl, imidazolyl, pyridyl, thienyl, thiazolyl, benzothiazolyl or pyridazinyl;

R¹ is alkyl, alkenyl, cyanoalkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, heteroaralkyl, heterocyclyl, heterocyclylalkyl, heteroalkyl or alkylcarbonylalkyl;

R^2 is alkyl, alkenyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, hydroxyalkyl, alkoxyalkyl, alkoxycarbonylalkyl, or $NR^{13}R^{14}$ wherein:

R^{13} is hydrogen or alkyl;

R^{14} is hydrogen, alkyl, alkenyl, acyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aralkyl, hydroxyalkyl, alkoxyalkyl, carboxyalkyl, alkoxycarbonylalkyl, or aminoalkyl;

R^3 is hydrogen, alkyl, halo, nitro, cyano, hydroxy, alkoxy; an ester, a carbamate, or a pharmaceutically acceptable salt thereof.

2. The compound of Claim 1, wherein R^3 is hydrogen.
3. The compound of Claim 2 wherein B is substituted aryl.
4. The compound of Claim 3 wherein B is substituted phenyl.
5. The compound of Claim 4 wherein R^1 is alkyl, cycloalkyl, cycloalkyl-alkyl, heterocyclyl, heterocyclylalkyl or heteroalkyl.
6. The compound of Claim 5 wherein R^1 is heteroalkyl.
7. The compound of Claim 6 wherein R^1 is alkylsulfonylalkyl.
8. The compound of Claim 7 wherein R^2 is alkyl.
9. The compound of Claim 8 wherein A is $-(CH_2)-$.
10. The compound of Claim 7 wherein R^2 is $NR^{13}R^{14}$ wherein R^{13} and R^{14} are hydrogen.
11. The compound of Claim 10 wherein A is $-(CH_2)-$.

12. The compound of Claim 2 wherein B is optionally substituted heteroaryl, wherein heteroaryl is furyl, imidazolyl, pyridyl, thienyl, thiazolyl, benzothiazolyl or pyridazinyl.

13. The compound of Claim 12 wherein R^1 is alkyl, cycloalkyl, cycloalkyl-alkyl, heterocyclyl, heterocyclylalkyl or heteroalkyl.

14. The compound of Claim 13 wherein R^1 is heteroalkyl.

15. The compound of Claim 14 wherein R^1 alkylsulfonylalkyl.

16. The compound of Claim 15 wherein R^2 is alkyl.

17. The compound of Claim 16 wherein A is $-(CH_2)-$.

18. The compound of Claim 15 wherein R^2 is $NR^{13}R^{14}$ wherein R^{13} and R^{14} are hydrogen.

19. The compound of Claim 18 wherein A is $-(CH_2)-$.

38. (Amended Herein) The compound of Claim 1 wherein: R^1 is heteroalkyl, wherein heteroalkyl is alkylsulfonylalkyl; and B is substituted aryl.

39. The compound of Claim 38, wherein R^2 is alkyl.

40. The compound of Claim 39, wherein A is $-(CH_2)-$.

41. The compound of Claim 38, wherein R^2 is NH_2 .

42. The compound of Claim 41, wherein A is $-(CH_2)-$.

43. A pharmaceutical composition comprising a therapeutically effective amount of a compound of Claim 1 and a pharmaceutically acceptable excipient.